

Soil and Groundwater Investigation

The Camas Property Tacoma, Washington

Appendix A Site Health and Safety Plan

**Prepared for
Camas Associates**

Prepared by
Floyd Snider McCarthy, Inc.
83 South King Street
Suite 614
Seattle, WA 98104

Approved By:

Signature

Date

Ecology Review Draft

May 18, 2004

1.0 Site Description

Site Name:	Camas Property
Specific Location:	2926 South M Street, Tacoma, Washington
Site Description:	Flat warehouse and parking lot used for rag storage
Project Manager:	John E. Leder, Floyd Snider McCarthy, Inc.
Site Safety Officer:	John LaManna, Floyd Snider McCarthy, Inc.
Surrounding Population:	Mostly workers in immediate vicinity.
Site Security:	None, unfenced site.
Other Measures to Protect Health and Safety of General Public:	None.
Provisions for Anticipated Weather Conditions:	Mild to wet spring weather.
Unusual Physical Safety Issues:	None.
Brief Site History:	Used in past for roofing tar manufacturing.
Purpose of Field Activities:	To collect groundwater and soil samples.
Anticipated Activities:	Soil borings, groundwater well installation, sample logging and sample collection.

2.0 Hazard Description

Field Activity Hazard Level: ☐ B ☐ C ☒ D ☐ Unknown

Potential Chemical Exposure? ☒ Yes ☐ No

If yes, list chemicals and attach specific hazard information for each chemical. Also include maximum allowable exposure levels.

List of Chemicals (describe potential routes of exposure for each:

Benzene, toluene, ethylbenzene, xylene, gasoline and diesel range hydrocarbons, volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), metals.

Routes of exposure for above chemicals are: direct dermal contact and ingestion of soil cuttings and environmental samples and breathing vapors emanating from samples. Specific hazard information for each chemical is included on Table 1.

Indicate the appropriate potential exposure routes on the list below:

- ☒ Inhalation
- ☒ Ingestion
- ☒ Dermal
- ☐ Explosive
- ☐ Oxygen Deficiency

Potential Physical Hazards? ☒ Yes ☐ No

If yes, indicate each type of potential exposure, and attach a description of the methods used to avoid each type of physical safety hazard:

- ☐ Cold Stress
- ☐ Heat Stress
- ☐ Noise
- ☒ Machinery Hazards
- ☐ Confined Spaces
- ☐ Terrain/Obstacles
- ☐ Other:

Location of HASP Field Copy: Windshield of field vehicle

Location of First Aid Kit: Field vehicle

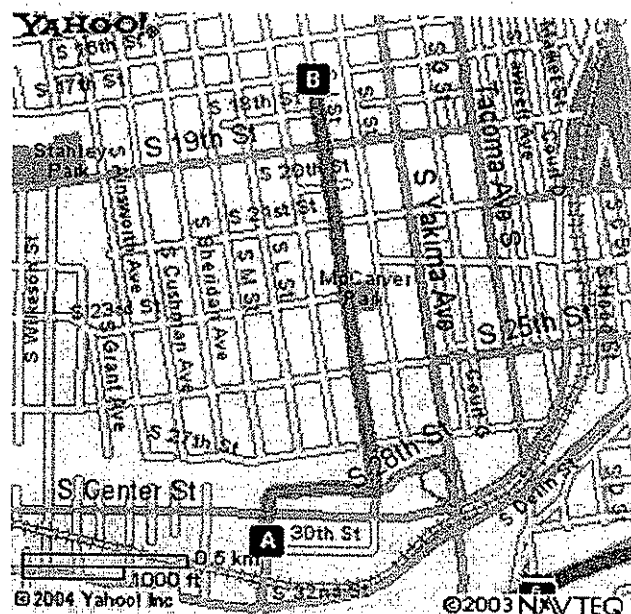
Additional Emergency Equipment and On-Site Location:

Fire Extinguisher	Field vehicle
Eye Wash	Field Vehicle
Other (specify)	n/a

Nearest Hospital: St. Joseph's Hospital. Phone: 253-627-4100
Address: 1717 South J Street, Tacoma, WA 98405

Directions to Hospital:

1. Start at 2926 South M Street, Tacoma - go 0.1 mi
2. South M ST becomes South 28TH Street - go 0.2 mi
3. Turn left on South J Street - go 0.8 mi
4. Arrive at 1717 South J Street, Tacoma



Emergency

Transportation/Assistance: Dial 911

Poison Control: (206) 526-2121

USEPA Region 10: (206) 553-1200

Emergency Procedures:

- Prevent further injury, perform appropriate decontamination, and notify the Project Manager at the site or the Site Safety Officer.
- Depending upon the type and severity of the injury, call 911.
- Notify the Floyd Snider McCarthy office (refer to contact information, below). Also, if injured person(s) are subcontractors, notify their offices.
- The injured party and Project Manager shall prepare accident reports and keep them on file.

Emergency Contact:

John E. Leder, Floyd Snider McCarthy, Inc.

Work: (206) 292-2078 ext. 1010

Home: (206) 523-2872

4.0 Work Practices and Provisions

Only approved Floyd Snider McCarthy personnel and subcontractors who have read and signed this safety plan will be allowed in the work zone on the site.

Floyd Snider McCarthy personnel and their subcontractors shall abide by all environmental regulations and site-specific permit conditions while working at the site.

A safety meeting shall be held at the start of fieldwork, and at least weekly thereafter to assess changing conditions.

All site work will be performed during daylight hours, unless proper lighting is provided.

An adequate supply of potable water shall be provided at the work site.

No eating, drinking, smoking, gum chewing, or tobacco chewing on-site, except in designated areas.

Wear all the personal protective equipment specified in this plan (Table 3).

Stay in visual contact with all equipment operators.

Report to the Site Safety Officer any symptoms of exposure, as well as all accidents/incidents.

Table 1
Chemical Contaminants of Concern

Contaminant	PEL (ppm)	IDLH (ppm)	Source/Quantity Characteristics	Route of Exposure	Symptoms of Acute Exposure	Instruments/ Frequency of Monitoring Contaminant ¹
Benzene	10	N/A	Historic gasoline releases	Inhalation	Dizziness	PID on each soil sample
Toluene	200	500	Historic gasoline releases	Inhalation	Dizziness	PID on each soil sample
Ethylbenzene	100	800	Historic gasoline releases	Inhalation	Dizziness	PID on each soil sample
Xylenes	100	N/A	Historic gasoline releases	Inhalation	Dizziness	PID on each soil sample
Diesel range organic			Historic releases	Inhalation; dermal		
Volatile organic compounds (VOCs)			Detected in soil	Inhalation; dermal		
Semi-volatile organic compounds (SVOCs)			Detected in soil	Dermal		Visual

Notes:

¹ Measurements will be collected in worker's breathing zone.

PEL Permissible exposure limit, as defined by OSHA

IDLH Immediately dangerous to life and health (NIOSH)

LEL Lower explosive limit

N/A Not applicable or not available

Table 2
Physical Hazards of Concern

Hazard	Description	Location	Procedures to Prevent Hazard
Construction equipment	Objects could fall from the drill rig tower.	Within 10 feet of drill rig.	Daily inspection of cables. Use safety clips on hooks.
Construction equipment	Personnel could be caught in the twisting augers of the drill rig.	Within 3 feet of augers.	Ensure that no personnel wear loose clothing and that long hair is bound.

Table 3
Personal Protective Equipment

Level of Personal Protection:	<input type="checkbox"/> A	<input type="checkbox"/> B	<input type="checkbox"/> C	<input checked="" type="checkbox"/> D
Location:	Marine Trades Area			
Activity:	Collection of subsurface soil and groundwater samples			
Protective Equipment				
Clothing		Head, Ear, and Eye		
<input type="checkbox"/> Fully encapsulating suit		<input checked="" type="checkbox"/> Hard hat		
<input type="checkbox"/> Chemically-resistant splash suit		<input type="checkbox"/> Goggles		
<input type="checkbox"/> Apron, specify:		<input type="checkbox"/> Face shield		
<input type="checkbox"/> Tyvek coverall		<input checked="" type="checkbox"/> Safety eyeglasses		
<input type="checkbox"/> Saranex coverall		<input checked="" type="checkbox"/> Ear protection (during drilling)		
<input type="checkbox"/> Coverall, specify:		<input type="checkbox"/> Muffs or plugs		
<input checked="" type="checkbox"/> Other, specify: cotton work clothes		<input type="checkbox"/> Other		
Respiratory		Hand Protection		
<input checked="" type="checkbox"/> None		<input type="checkbox"/> Not applicable		
<input type="checkbox"/> SCBA, Airline		<input type="checkbox"/> None		
<input type="checkbox"/> Full-face respirator		<input type="checkbox"/> Undergloves, type:		
<input type="checkbox"/> Half-face respirator		<input checked="" type="checkbox"/> Gloves, type: Nitrile		
<input type="checkbox"/> Escape mask		<input type="checkbox"/> Overgloves, type:		
<input type="checkbox"/> Other, specify:		<input type="checkbox"/> Other, specify:		
Foot Protection		Monitoring Equipment		
<input type="checkbox"/> Not applicable		<input type="checkbox"/> CGI		
<input checked="" type="checkbox"/> Neoprene safety boots with steel toe/shank		<input type="checkbox"/> Oxygen meter		
<input type="checkbox"/> Disposable overboots		<input type="checkbox"/> Rad survey		
<input type="checkbox"/> Other, specify:		<input type="checkbox"/> Detector tubes, type:		
		<input checked="" type="checkbox"/> PID		
		<input type="checkbox"/> FID		
		<input type="checkbox"/> Noise meter		
		<input type="checkbox"/> Other, specify:		
Personal Decontamination:	<input type="checkbox"/> Not required		<input checked="" type="checkbox"/> Required	
Equipment Decontamination	<input type="checkbox"/> Not required		<input checked="" type="checkbox"/> Required	
If required, describe requirements: Wear gloves to collect samples, change between locations. Dispose of gloves, wash hands and face prior to eating or drinking. Decontaminate sampling equipment with Alconox scrub and two clean water rinses.				

Attachment A
Action Levels for Respiratory Protection

Monitoring Parameters	Reading	Action Level
Organic vapors ^(a,b)	0-5 ppm over background	Level D modified
	Greater than 5 ppm over a 1-minute duration	Leave work area

Notes:

- a Reading collected in worker breathing zone for organic vapors and at the ground surface or borehole for combustible gas.
- b Personnel required to use respirator must be able to demonstrate that respirator fit testing and training requirements are current.

ppm Parts per million

Attachment B
Forms to be Completed for an Occupational Injury or Illness

This attachment contains the forms that should be completed by the employee and supervisor in the event of an occupational injury or illness.

Employee's Report of an Occupational Injury or Illness

Employee Name:			
Employee Job Title:			
Exact date and time of incident:			
Location of incident:			
Person to whom incident was reported:			
Witnesses:			
Summarize what you think occurred:			
What could have been done to avoid this accident:			
Explain in detail: what part(s) of your body was injured or affected:			
Is this an original injury or a re-injury?			
If a re-injury, when and where was previous injury?			
Who was the employer?			
Claim number:			
Would you be willing to perform light-duty work during your recovery?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Date and time you sought medical attention:			
Whom did you see for medical attention?			
Office/Hospital:			

Employee Signature: _____ Date: _____

Return this form to Floyd Snider McCarthy, Inc. as soon as possible.

NOTE: Washington Administrative Code # 296-24-025(6) states: *Employee's responsibility:*
"Employees shall make a prompt report to their immediate supervisor of each industrial injury."

Project Manager's Report of an Occupational Injury or Illness

Project Manager			
Date:		Exact time incident reported to you:	
Employee's Name:			
Who reported the incident?			
Witnesses:			
Describe the incident:			
Was first aid required?		<input type="checkbox"/> Yes <input type="checkbox"/> No	
Did the accident require a doctor's treatment?		<input type="checkbox"/> Yes <input type="checkbox"/> No	
Date and time of next doctor appointment:			
Was the employee competent and skillful in his/her job?		<input type="checkbox"/> Yes <input type="checkbox"/> No	
What were the causes?			
Will this be a time-loss case?		<input type="checkbox"/> Yes <input type="checkbox"/> No	
If so, was the employee instructed to keep the company informed of his/her progress?		<input type="checkbox"/> Yes <input type="checkbox"/> No	
If not, why not?			
Has this employee had other occupational injuries?		<input type="checkbox"/> Yes <input type="checkbox"/> No	
Explain in detail: what part(s) of the body was injured or affected:			
Other details of the incident:			

Project Manager
Signature: _____

Date: _____

I have read and understand the information contained in this Health and Safety Plan and its attachments, and agree to abide by its provisions.

Signature

Date _____

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